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NOTES ON GEOGRAPHIC DISTRIBUTION

Reptilia, Squamata, Teiidae, *Teius suquiensis*: New evidence of recent expansion of this parthenogenetic lizard?

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Teius suquiensis is the only parthenogenetic teiid lizard known in southern South America. From its discovery in central Córdoba province, Argentina, and description (Avila and Martori 1991), new findings, both in museum collections and in the field, have extended its range to the neighboring provinces of San Luis in the southwest (Martori and Aun 1995) and Santa Fe, in the east (Avila 1995). In many localities, the species lives in sympatry with one of the bisexual species, either *Teius teyou* or *T. oculatus*. Sympatric occurrence of the three species has been reported at Daniel Donovan and San Luis city, both in San Luis province (Guerreiro et al. 1998), and between the localities of Gregoria Perez de Denis and Tostado, in Santa Fe province (Avila 2002).

The significant environmental alterations introduced by human activities, particularly deforestation and woodland substitution by soybean and other cultures, have had a profound effect on the lizards, causing the loss of some populations and the possible range expansions of others. *Teius suquiensis*, as well as *T. oculatus*, is frequently associated with disturbed, ecotonal or marginal habitats (Avila and Martori 1991). Also the possibility of ongoing hybridization between the bisexual species of *Teius* has been suggested (Penafort et al. 1986; Avila 2002). In such a dynamic system, it is important to collect any new information able to improve the knowledge on the current ranges of the respective species.

In this paper we report a new case of sympatry between *Teius suquiensis* and *T. teyou*, and extend the range of the former.

All specimens were taken in the suroundings of the ranch El Cercado, 12 km SE of Pozo Nuevo, Department of Sobremonte, Province of Córdoba, Argentina (29º38'39" S, 64º00'51.6" W), on 25 January 2007, between 12:00 and 14:30 h. The collection site is situated on the Sierra de Ambargasta, at 597 m of altitude. Phytogeographically it belongs to the Chaco Formation (*provincia fitogeográfica chaqueña*), within a landscape of quebracho blanco (*Aspidosperma quebracho-blanco*) and *Prosopis* spp. trees, degraded and altered by wood extraction, fires, and cattle raising, that have produced its present physiognomy of secondary thorn woodland (*matorrales de sustitución*) with prevalence of bushes of the genera *Mimozyganthus*, *Celtis*, *Mimosa*, and *Acacia* (Prado 1993; Cabido and Zak 1999).

Three voucher specimens of *Teius suquiensis* (Figure 1) were collected and housed at the herpetological collection of the Comparative Anatomy Laboratory, Universidad Nacional de Córdoba, Argentina, under the catalogue numbers C.484, C.486, and C.488. The only other lizard syntopic with *T. suquiensis* was *T. teyou* (Figure 2), of which we collected two adult females (C.483 and C.487) and one subadult male (C.485).

Check List 2007: **3**(3)
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Figure 1. Adult of the all-female species *Teius suquiensis* from Ranch El Cercado, Department of Sobremonte, Córdoba, Argentina.

Figure 2. Adult female of *Teius teyou*, syntopic and sympatric with *T. suquiensis* at Ranch El Cercado.

NOTES ON GEOGRAPHIC DISTRIBUTION

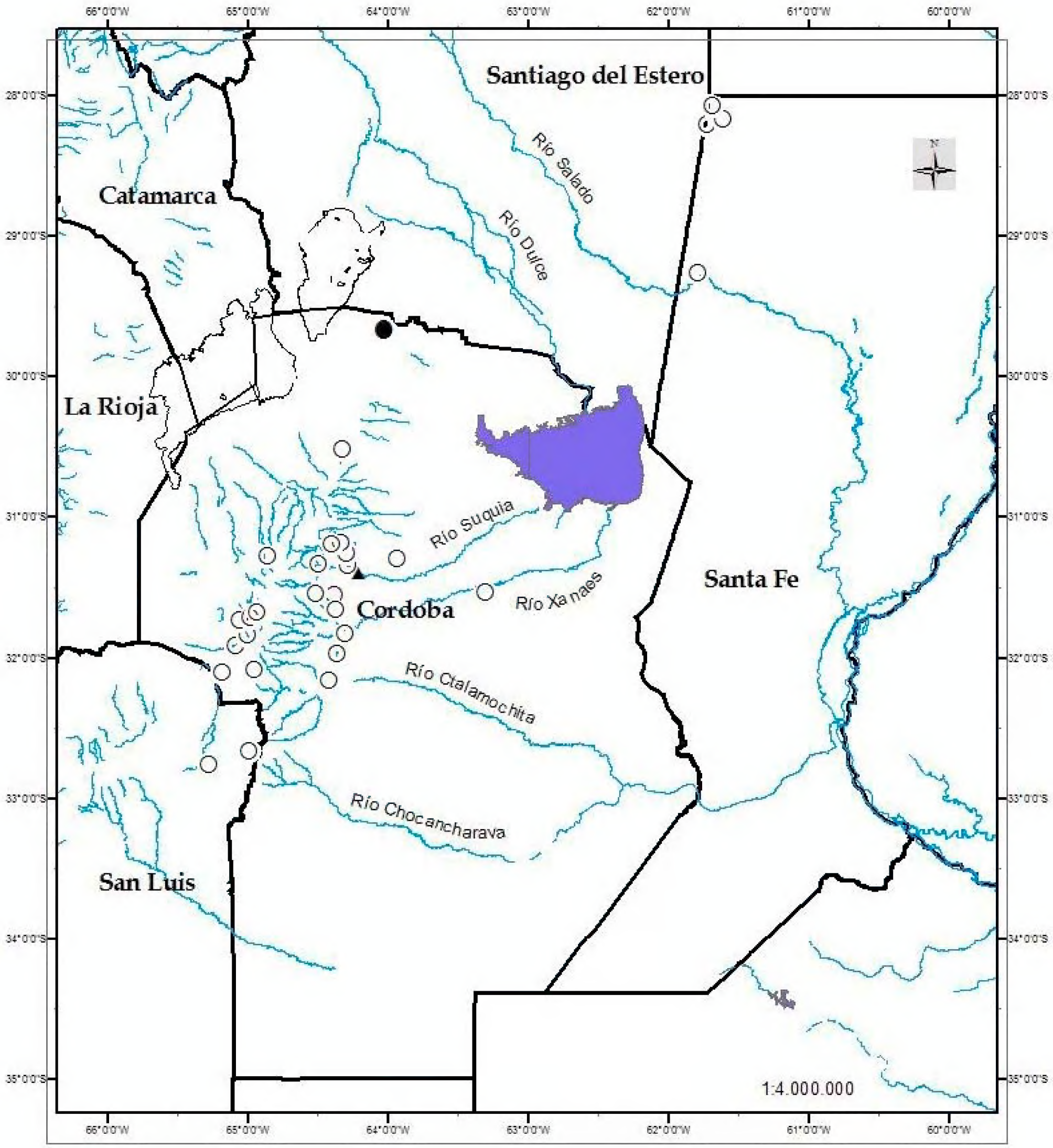

Figure 3. Geographic distribution of *Teius suquiensis*. White circles are data from literature (Avila 2002); black circle represents El Cercado record.

Check List 2007: **3**(3)
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The lizards were active on both man-made clearings and sandy secondary roads. Upon pursuit, they rapidly fled, seeking shelter in nearby *Lagostomus* burrows or under bushes. If captured, they vigorously struggled and tried to bite. Body temperature was not measured but the lizards were perceptibly warm. In two complete days of field work only one subadult male (snout-vent length = 105 mm, still without blue pattern) of *Teius teyou* was seen. All others were either adult females of both species or juveniles probably in their second or third year of age, according to their body sizes. At dissection, the females of both species showed big intrabdominal fat bodies, and small ovarian follicles. This agrees with the results of Martori and Aun (1993), who found enlargement of fat bodies after the end of the reproductive season in late December, in a population of *Teius suquiensis* from Bialet Massé, 190 km to the south from El Cercado.

Other lizards we found occupying different habitats, but not far away, were the common Chacoan iguanids *Tropidurus etheridgei* and *T. spinulosus*, on big rocks, trees, and roof and walls, both inside and outside of the house, and *Stenocercus doellojuradoi* under low bushes with sandy soil. Also an adult Red Tegu lizard (*Tupinambis rufescens*) was seen foraging on the sandy road, a hundred meters away from the house.

The enhanced reproductive potential of an all-female population of lizards as *Teius suquiensis* could provoke the rapid replacement or displacement of sexual species by this partheno-genetic form. In samples collected by us 23 years ago at the same locality, the only species of *Teius* present was *T. teyou*. Avila (1995) found sympatry of the three species at Santa Fe, in museum samples collected more than 25 years before at the locality of Tostado. However, in a 1995 field trip, he found only *T. suquiensis* at this locality.

The present new record for *Teius suquiensis* extends the previously known range in the province of Córdoba ca. 100 km to the north, into the Chaco Formation, and 220 km to the WSW from the nearest eastern locality, Tostado (Avila 2002). This range extension still does not fill the considerable gap between the populations of Córdoba and Santa Fe provinces (Figure 3). It is important to note that the species has been found neither in an intervening zone with Chaco remnants in northeastern Córdoba (Briguera et al. 2006) nor in the province of Santiago del Estero. Being *T. suquiensis* not typical in Chacoan lizard communities, future work in both unaltered and disturbed Chaco sites would help to better understand the species distribution trend.

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